WHAT IS CLAIMED IS:

1. A method of simulating radio frequency signal processing circuitry, comprising:

forming a compressed vector based equivalent of a signal;

performing processing on the compressed vector based equivalent to simulate radio frequency circuitry operation, the processing forming a processed compressed vector based equivalent of the signal; and

forming an output signal using the processed compressed vector based equivalent of the signal.

2. The method of claim 1 wherein information in the compressed vector based equivalent of the signal is limited to information of the signal in frequency bands of interest.

3. The method of claim 1 wherein the processing simulates non-linear operations.

4. The method of claim 1 wherein the processing is compressed vector based processing.

5. The method of claim 1 wherein the processing includes linear time invariant processing and non-linear time invariant processing.

6. The method of claim 1 wherein the processing is frequency domain processing.

7. The method of claim 1 wherein the processing is time domain processing.

8. The method of claim 1 wherein the processing simulates RF receiver front-end processing.

9. The method of claim 2 wherein the signal is centered about a carrier frequency, and the frequency bands of interest include the carrier frequency and harmonics of the carrier frequency.

10. The method of claim 9 wherein the signal is bandwidth limited to a bandwidth B, and the frequency bands of interest are limited to the bandwidth B.

11. A method of modelling circuitry, comprising:

converting first signals to compressed equivalent signals;

processing the compressed equivalent signals to form further compressed equivalent signals; and

converting the further compressed equivalent signals to second signals.

12. The method of modelling circuitry of claim 11 wherein the first signals are signals about a carrier frequency and harmonics and sub-harmonics of the carrier frequency and the compressed equivalent signals are formed by restricting information in the compressed equivalent signals to signal components about the carrier frequency and harmonics and sub-harmonics of the carrier frequency.

13. The method of modelling circuitry of claim 12 wherein the first signals are bandwidth limited and the compressed equivalent signals are bandwidth limited.

14. A system for performing RF signal processing modelling, the system comprising:

signal generator blocks forming compressed vector based equivalent signal representations;

RF signal processing blocks processing compressed vector based equivalent signal representations; and

conversion blocks converting compressed vector based equivalent signals to RF signal representations.

15. The system of claim 14 wherein the RF signal processing blocks are formed using sub-blocks comprising linear time invariant blocks and non-linear time invariant blocks.